

allegedly being unpatentable over Oshima *et al.* (U.S. Patent No. 5,761,301) in view of Moskowitz *et al.*

The Examiner rejected claims 18 and 19 under 35 U.S.C. §103(a) as allegedly being unpatentable over Oshima *et al.* and Moskowitz as applied to claim 1 above, and further in view of Naccache *et al.*

**35 U.S.C. §103**

Claims 1-17 are rejected under 35. U.S.C. §103(a) as allegedly being unpatentable over Oshima *et al.* (U.S. Patent No. 5,761,301) in view of Moskowitz *et al.*

The Examiner alleges that "In their abstract, Oshima *et al.* discloses a medium mark on an optical disk. See part 819b of figure 1 for reading a medium mark from the record carrier. The position information is sent to an encryptor that creates a digital signature of the position information, as described in the abstract. The digital signature reads on applicants' second bitpattern, while the position information reads on applicants' first bitpattern. Figure 18 shows the entire process of forming the digital signature and then verifying it.

Oshima *et al.* does not say that the digital signature is embedded as a watermark in user information. In lines 44-57 of column 6, Moskowitz presents the beneficial method of embedding digital signatures as watermarks in content. Content is user

information in that it is used by the user. This embedding provides nonrepudiation and validation. The Examiner alleges, therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to embed the signatures described in Oshima et al. as watermarks into the user information in order to assure nonrepudiation and validity."

As to claim 1 as amended, Applicant respectfully contends that Oshima and Moskowitz do not individually or collectively teach or suggest each and every feature of claim 1. As a first example, Oshima and Moskowitz do not teach or suggest the features of "reading means for **reading** from an information carrier, **a medium mark** representing **a first bitpattern**; " and "generating a second bitpattern according to a predefined relationship to **contents** of the first bitpattern; "(emphasis added). Oshima and Moskowitz do not teach or suggest a copy protection system that comprises a recorder that **reads a media mark** comprising a first bitpattern from an information carrier and generates a second bitpattern according to a predefined relationship to **contents** of the first bitpattern, as described in Applicant's claim 1. Applicant contends that the Examiner has incorrectly concluded that in step 819b of the Oshima patent, **a medium mark is read** from a record carrier. In contrast, in step 819b of the Oshima patent **position information for** a medium mark is read from a record carrier and encrypted in step 819c as shown

by oshima in col. 7, lines 21-34. Therefore, Applicant contends Oshima and/or Moskowitz do not teach or suggest that contents of a medium mark are read and that a second bitpattern is generated having a direct relationship to the **contents** of the first bitpattern as in Applicant's claim 1.

As a second example, Oshima and Moskowitz do not teach or suggest the feature of "a **player** including: first reading means for reading the medium mark representing the first bitpattern from the information carrier; second reading means for reading the embedded watermark representing the second bitpattern from the user information; verifying means for verifying the relationship between the second bit pattern and contents of the the first bit pattern; and enabling means for **enabling playback** of the recorded watermarked user information from the information carrier based on said verification " (Emphasis added). Applicant contends that the Examiner has not even alleged that Oshima or moskowitz show **a player comprising enabling means for enabling playback** of recorded watermarked user information from an information carrier based on verification of a predefined relationship between a first bitpattern and contents of a second bitpattern as shown by claim 1 Applicant's disclosure.

As a third example, Oshima and Moskowitz do not teach or suggest the feature of " recorded user information encoded with **a watermark representing a second bitpattern** having a predefined

relationship to contents of the first bitpattern" (emphasis added). Applicant contends that the Examiner has incorrectly concluded that a digital signature comprising position information of a medium mark in the Oshima patent is equivalent to Applicant's second bitpattern in claim 1. Applicant's second bitpattern is generated according to a predefined relationship to **contents** of Applicant's first bitpattern within the medium mark (see entire specification). Since the digital signature in the Oshima patent comprises position information of a medium mark and does not comprise information relating to contents of a bitpattern within a medium mark as required by claim 1 of Applicant's disclosure, Applicant contends that the digital signature in the Oshima patent is not equivalent to Applicant's second bitpattern in claim 1 as stated by the Examiner.

As a forth example, Applicant contends that Oshima in view of Moskowitz do not individually or collectively teach or suggest the feature of " encoder means for embedding a watermark representing the second bitpattern **in** user information to be recorded " (emphasis added). Oshima and Moskowitz do not teach that a digital signature is embedded **as a watermark** in user information. The Examiner has incorrectly concluded that Moskowitz " In lines 44-57 of column 6, Moskowitz presents the beneficial method of embedding digital signatures as watermarks in content". In contrast, Moskowitz teaches in lines 44-57 of

column 6 that a digital signature is embedded **in** a watermark not as a watermark to check the validity of the watermark.

Therefore, Applicant contends Oshima and Moskowitz do not teach or suggest that a digital signature is embedded **as a watermark** in user information. Based on the preceding arguments, Applicant respectfully maintains that claim 1 is not unpatentable over Oshima in view of Moskowitz and that claim 1 is in condition for allowance. Since claims 2-4, 14, 18, and 19 depend from claim 1, Applicant contends that claims 2-4, 14, 18, and 19 are likewise in condition for allowance.

As to claim 5 as amended, Applicant respectfully contends that Oshima and Moskowitz do not individually or collectively teach or suggest each and every feature of claim 5. For example, Oshima and Moskowitz do not teach or suggest the feature of "reading means for **reading** from an information carrier, **a medium mark** representing **a first bitpattern**;" (emphasis added). Based on the arguments for the preceding feature presented *supra* in relation to claim 1, Applicant respectfully maintains that claim 5 is not unpatentable over Oshima in view of Moskowitz and that claim 5 is in condition for allowance. Since claim 15 depends from claim 5, Applicant contends that claim 15 is likewise in condition for allowance.

As to claim 9 as amended, Applicant respectfully contends that Oshima and Moskowitz do not individually or collectively

teach or suggest each and every feature of claim 9 as discussed *supra* in the arguments for claim 1. For example, Oshima and Moskowitz do not teach or suggest the feature of "a second bitpattern according to a predefined relationship to **contents** of the first bitpattern " (emphasis added). Based on the arguments for the preceding feature presented *supra* in relation to claim 1, Applicant respectfully maintains that claim 9 is not unpatentable over Oshima in view of Moskowitz and that claim 9 is in condition for allowance. Since claims 10 and 16 depend from claim 9, Applicant contends that claims 10 and 16 are likewise in condition for allowance.


As to claim 11 as amended, Applicant respectfully contends that Oshima and Moskowitz do not individually or collectively teach or suggest each and every feature of claim 11 as discussed *supra* in the arguments for claim 1. For example, Oshima and Moskowitz do not teach or suggest the feature of "reading means for **reading** from an information carrier, **a medium mark** representing **a first bitpattern** " (emphasis added). Based on the arguments for the preceding feature presented *supra* in relation to claim 1 Applicant respectfully maintains that claim 11 is not unpatentable over Oshima in view of Moskowitz and that claim 11 is in condition for allowance. Since claims 12, 13 and 17 depend from claim 11, Applicant contends that claims 12, 13 and 17 are likewise in condition for allowance.

### Conclusion

Based on the preceding arguments and amendments, Applicants respectfully believe that claims 1-21 and the entire application meet the acceptance criteria for allowance and therefore request favorable action. Should the Examiner believe anything further would be useful in resolving any outstanding issues, he is invited to contact Applicants' representative at the telephone number listed below.

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Respectfully submitted,



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## AMENDED MATERIAL

Claims 1, 5, 9, 11, and 18 are amended as follows:

1. (four times amended) A system comprising:

a recorder, including:

reading means for reading from an information carrier

[record carrier], a medium mark representing a first bitpattern;

generating means for generating a second bitpattern

according to a predefined relationship to [the] contents of the  
first bitpattern;

encoder means for embedding a watermark representing the  
second bitpattern in user information to be recorded; and

recording means for [writing] recording the watermarked user  
information on the information carrier for storage;

the system further comprising:

a player including:

first reading means for reading the medium mark representing  
the first bitpattern from the information carrier;

second reading means for reading the embedded watermark  
representing the second bitpattern from the user information;

verifying means for verifying the relationship between the  
second bit pattern and the first bit pattern; and

enabling means for enabling playback of the recorded  
watermarked user information from the information carrier based  
on said verification.



[means for reproducing the recorded watermarked user information from the information carrier; and

means for verifying the relationship between the second bit pattern and the first bit pattern.]

5. (four times amended) A recorder comprising:

reading means for reading from an information carrier, a medium mark representing a first bitpattern;

generating means for generating a second bitpattern according to a predefined relationship to contents of [a] the first bitpattern [represented on a record carrier by a medium mark]; and

encoder means for embedding a watermark representing the second bitpattern in user information to be recorded ; and

recording means for recording the watermarked user information [on] the information [record] carrier for storage.

9. (thrice amended) An information carrier comprising:

a medium mark representing a first bitpattern; and

recorded user information encoded with a watermark representing a second bitpattern having a predefined relationship to contents of the the first bitpattern whereby the relationship between the second bitpattern and the contents of the first bitpattern can be verified in a computer process.

11. (four times amended) A player comprising:

[means for reproducing user information from a record carrier ;

first means for reading a medium mark representing a first bitpattern from the record carrier;

second means for detecting a second bitpattern represented by a watermark in the reproduced user information; and

verification means for verifying a predefined relationship between the second bitpattern and the first bitpattern]

first reading means for reading a medium mark representing a first bitpattern from an information carrier;

second reading means for reading a embedded watermark representing a second bitpattern from recorded user information;

verifying means for verifying a predefined relationship between the second bit pattern and contents of the first bit pattern; and

enabling means for enabling playback of the recorded user information from the information carrier based on said verification.

18. (twice amended) The system of claim 1 in which the medium mark is pressed in the [record] information carrier during manufacture.